

Roll No.

Total No. of Pages 02

Total No. of Questions : 09

B.Tech. (Sem. – 4th)
OPERATING SYSTEM
SUBJECT CODE : CS - 202
Paper ID : [A0458]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hrs.

Max. Marks : 60

Instruction to Candidates:

1. Section -A is **Compulsory**.
2. Attempt any **Four** questions from Section - B.
3. Attempt any **Two** questions from Section - C.

SECTION - A (10 *2 = 20 Marks)

Q1.

- a) What is virtual memory? Explain.
- b) Differentiate between parallel systems and distributed systems.
- c) Differentiate between process scheduling and job scheduling.
- d) What is the need of revocation of access rights?
- e) How is the security ensured in an operating system?
- f) Define thrashing.
- g) List some properties of logical address space.
- h) What is semaphore? Explain.
- i) What do you understand by FAT? Explain.

j) What is the domain of protection? Explain.

SECTION - B

(4*5 = 20 Marks)

- Q2. What resources are used when a thread is created? How do they differ from those when a Process is created?
- Q3. Analyze the impact of time quantum in round robin scheduling algorithm.
- Q4. How can timer be used as a CPU protection mechanism? Explain'
- Q5. Explain why it's less costly to enforce controlled access in segmented memory management than in pure paging'
- Q6. Differentiate between multitasking and multiprogramming systems.

SECTION - C

(2*10 = 20 Marks)

- Q7. What are the various techniques available for secondary storage management? Describe any two techniques.
- Q8. Explain the security and protection mechanism of Linux operating system.
- Q9. Explain the Banker's algorithm for detection and avoidance of deadlock with the help of suitable example.